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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,200	11/14/2001	Benjamin J. Bekritsky	1241	5722

21003 7590 06/30/2005

BAKER & BOTTS  
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NEW YORK, NY 10112

EXAMINER
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ISSING, GREGORY C

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/992,200

**Applicant(s)**

BEKRITSKY ET AL.

**Examiner**

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Stilp et al.
3. The rejection is set forth in the previous Office Action.
4. Applicants argue that Stilp et al use an internal calibration method that utilizes an external time reference signal to set, adjust or commonly synchronize individual receiver clocks. Further, Stilp et al is argued as not showing use of a linear polynomial fit to synchronize the arrival times nor the use of synchronized arrival times in an hyperbolic trilateration computation.
5. The applicants' arguments are not convincing. Stilp et al describe internal and external calibration and the applicants only address the internal calibration. However, the external calibration (21:50-24:24) method meets the scope of the claimed subject matter. A calibration transmitter of known location transmits a signal to each of two base stations of a baseline. Each measures a TOA which is compared with the other base station TOA to determine a TDOA value. The calculated TDOA is compared to a known a priori TDOA value for the pair of base stations in order to calculate any errors. An error includes a difference in the internal clocks of the base stations as well as other circuitry delays, multipath, etc. Furthermore, the calibration makes use of a polynomial fit as suggested by the teachings of Stilp et al (70:24-73:50).
6. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Heller.
7. The rejection is set forth in the previous Office Action.
8. Applicants argue that Heller does not suggest taking a time difference in the arrival of a fixed location radio beacon at two receiver stations and using the time difference directly to synchronize the two receiver stations' clocks relative to each other. Further, Heller is argued as not showing use of a linear polynomial fit to synchronize the arrival times nor the use of synchronized arrival times in an hyperbolic trilateration computation.
9. The applicants' arguments are not convincing. In Section 1.5 Heller describes the calibration of the system using a fixed location radio beacon signal from TAG transmitters 35 (10:64 – 11:48). Each

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receiver of the system is arranged so as to receive signals from more than one TAG transmitter 35. Each receiver measures the TOA and couples the measurement to a system processor 40 which measures time differences of arrivals therefrom and compares the time differences to the known time difference of arrival values to calculate calibration coefficients for each receiver which are subsequently used to adjust the time of arrival data from unknown transmitters in the subsequent trilateration of the position of an unknown transmitter. Moreover, the applicants fail to address claim language as claim 7 only sets forth a method for determining location by synchronizing internal clocks of receiving stations, receiving signals from a mobile, determining TOA and TDOA values and determining position using hyperbolic trilateration, all of which is shown by Heller.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory C. Issing  
Primary Examiner  
Art Unit 3662

gci